

| Ref # | Hits | Search Query   | DBs   | Default Operator | Plurals | Time Stamp       |
|-------|------|--|---|------------------|---------|------------------|
| L4    | 5    | "018320".ap.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR               | ON      | 2005/12/18 12:29 |
| S1    | 5    | "018320".ap.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR               | ON      | 2005/12/18 12:29 |
| S2    | 0    | "6914049.pn"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR               | ON      | 2005/12/16 13:23 |
| S3    | 0    | "6914049.pn."  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR               | ON      | 2005/12/16 13:23 |
| S4    | 3    | "6914049".pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR               | ON      | 2005/12/16 14:39 |
| S5    | 56   | ((cytochrome adj P450 adj 2D6) or hCYP2D6) and allele  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR               | ON      | 2005/12/16 16:13 |
| S6    | 1    | (hCYP2D6*1 or hCYP2D6*2 or hCYP2D6*9 or hCYP2D6*10 or hCYP2D6*17) and allele   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR               | ON      | 2005/12/16 15:03 |
| S7    | 8    | S5 and @ad<"20000314"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR               | ON      | 2005/12/16 16:02 |
| S8    | 0    | S6 and S7  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR               | ON      | 2005/12/16 14:43 |
| S9    | 0    | S7 and ((chinese adj hamster adj lung adj fibroblast) or v79 or (v79 adj cells) or (chinese adj hamster adj fibroblast)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR               | ON      | 2005/12/16 15:04 |

|     |      |  |   |    |    |                  |
|-----|------|--|---|----|----|------------------|
| S10 | 1    | (V79MZh2D6*1 or V79MZh2D6*2 or V79MZh2D6*9 or V79MZh2D6*10 or V79MZh2D6*17)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 14:49 |
| S11 | 1276 | screen\$3 and ((cytochrome adj P450 adj 2D6) or hCYP2D6 or CYP2D6)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:14 |
| S12 | 141  | S11 and @ad<"20000314"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 14:55 |
| S13 | 128  | S12 and (metabolism or metabolic or metabolize)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:12 |
| S14 | 131  | S12 and (metabolism or metabolic or metabolize or metabolite)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 14:56 |
| S15 | 90   | S14 and (((gene adj dependent adj toxicity) or carcingen\$3 or oncogen\$3 or mutagen\$3) and (drugs or compound or substance)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:12 |
| S16 | 81   | S15 and (((cytochrome adj P450 adj 2D6) or hCYP2D6 or CYP2D6) and allele)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 15:01 |
| S17 | 0    | S16 and (hCYP2D6*1 or hCYP2D6*2 or hCYP2D6*9 or hCYP2D6*10 or hCYP2D6*17)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 15:02 |
| S18 | 13   | ((cytochrome adj P450 adj 2D6) or hCYP2D6) and heterologous  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 15:03 |
| S19 | 2    | S18 and @ad<"20000314"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 15:03 |

|     |      |   |   |    |    |                  |
|-----|------|---|---|----|----|------------------|
| S20 | 0    | S19 and (hCYP2D6*1 or hCYP2D6*2 or hCYP2D6*9 or hCYP2D6*10 or hCYP2D6*17)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 15:03 |
| S21 | 0    | S19 and ((chinese adj hamster adj lung adj fibroblast) or v79 or (v79 adj cells) or (chinese adj hamster adj fibroblast)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 15:04 |
| S22 | 866  | ((cytochrome adj P450 adj 2D6) or hCYP2D6 or CYP2D6 or CYP-2D6 or (CYP adj 2D6)) and allele and heterologous              | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:13 |
| S23 | 79   | S22 and @ad<"20000314"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:03 |
| S24 | 915  | ((cytochrome adj P450 adj 2D6) or hCYP2D6 or CYP2D6 or CYP-2D6 or (CYP adj 2D6)) and heterologous                         | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:05 |
| S25 | 1062 | ((cytochrome adj P450 adj 2D6) or hCYP2D6 or CYP2D6 or CYP-2D6 or (CYP adj 2D6)) and allele                               | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:03 |
| S26 | 91   | S24 and @ad<"20000314"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:06 |
| S27 | 79   | S26 and allele  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:06 |
| S28 | 1    | ((cytochrome adj P450 adj 2D6) or hCYP2D6 or CYP2D6 or CYP-2D6 or (CYP adj 2D6)) near heterologous                        | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:06 |
| S29 | 16   | ((cytochrome adj P450 adj 2D6) or hCYP2D6 or CYP2D6 or CYP-2D6 or (CYP adj 2D6)) same heterologous                        | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:05 |

|     |    |   |   |    |    |                  |
|-----|----|---|---|----|----|------------------|
| S30 | 13 | S29 and allele  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:07 |
| S31 | 0  | S30 and @ad<"20000314"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:07 |
| S32 | 0  | ((cytochrome adj P450 adj 2D) or hCYP2D or CYP2D or CYP-2D or (CYP adj 2D)) near heterologous | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:10 |
| S33 | 0  | ((cytochrome adj P450 adj 2D) or hCYP2D or CYP2D or CYP-2D or (CYP adj 2D)) same heterologous | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:07 |
| S34 | 52 | ((cytochrome adj P450 adj 2D) or hCYP2D or CYP2D or CYP-2D or (CYP adj 2D)) and heterologous  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:07 |
| S35 | 7  | S34 and @ad<"20000314"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:11 |
| S36 | 4  | S35 and allele  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:16 |
| S37 | 0  | ((cytochrome adj P450 ) same allele) near heterologous  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:11 |
| S38 | 0  | ((cytochrome adj P450) near allele) near heterologous   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:11 |
| S39 | 0  | ((cytochrome adj P450) and allele) near heterologous  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:11 |

|     |      |  |   |    |    |                  |
|-----|------|--|---|----|----|------------------|
| S40 | 1718 | ((cytochrome adj P450) and allele) and heterologous  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:16 |
| S41 | 176  | S40 and @ad<"20000314"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:16 |
| S42 | 154  | S41 and (metabolism or metabolic or metabolize)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:12 |
| S43 | 108  | S42 and (((gene adj dependent adj toxicity) or carcingen\$3 or oncogen\$3 or mutagen\$3) and (drugs or compound or substance)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:12 |
| S44 | 0    | ((cytochrome adj P450 adj 2D6) or hCYP2D6) and S43   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:13 |
| S45 | 70   | ((cytochrome adj P450 adj 2D6) or hCYP2D6 or CYP2D6 or CYP-2D6 or (CYP adj 2D6)) and S43                                       | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:13 |
| S46 | 107  | screen\$3 and S43  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:14 |
| S47 | 70   | screen\$3 and S45  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:14 |
| S48 | 14   | ((cytochrome adj P450) near allele)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:16 |
| S49 | 4    | S48 and heterologous   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 16:16 |

|     |   |   |   |    |    |                  |
|-----|---|---|---|----|----|------------------|
| S50 | 0 | S49 and @ad<"20000314"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 17:41 |
| S51 | 1 | (emulgen adj "913") and<br>(cytochrome adj p450) and<br>(((carbon adj monoxide) or CO)<br>near (spectra or spectrum))                               | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 17:41 |
| S52 | 1 | (emulgen adj "913") and<br>(cytochrome adj p450) and<br>(reduced adj spectrum) and<br>(((carbon adj monoxide) or CO)<br>near (spectra or spectrum)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 17:41 |
| S53 | 9 | (emulgen adj "913") and<br>(cytochrome adj p450)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 17:40 |
| S54 | 6 | S53 and @ad<"20000314"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 17:41 |
| S55 | 0 | S54 and (((carbon adj monoxide) or<br>CO) near (spectra or spectrum))   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 17:46 |
| S56 | 0 | S54 and (reduced adj spectrum)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 17:41 |
| S57 | 5 | S54 and (difference adj spectra)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/12/16 17:46 |

Dialog 12/18/05  
LLMT 10/018,320

Trying 31060000009999...Open

DIALOG INFORMATION SERVICES

PLEASE LOGON:

\*\*\*\*\* HHHHHHHH SSSSSSSS? ### Status: Signing onto Dialog \*\*\*\*\*

ENTER PASSWORD:

\*\*\*\*\* HHHHHHHH SSSSSSSS? \*\*\*\*\*

### Status: Login successfulWelcome to DIALOG

Dialog level 05.09.03D

Last logoff: 15dec05 15:18:28

Logon file405 18dec05 10:39:51

\*\*\* ANNOUNCEMENT \*\*\*

\*\*\*

NEW FILES RELEASED

\*\*\*Index Chemicus (File 302)

\*\*\*Inspec (File 202)

\*\*\*Physical Education Index (File 138)

\*\*\*Computer and Information Systems Abstracts (File 56)

\*\*\*Electronics and Communications Abstracts (File 57)

\*\*\*Solid State and Superconductivity Abstracts (File 68)

\*\*\*ANTE: Abstracts in New Technologies (File 60)

\*\*\*

RELOADS COMPLETED

\*\*\* The 2005 reload of the CLAIMS files (Files 340, 341, 942)  
is now available online.

RESUMED UPDATING

\*\*\*ERIC (File 1)

\*\*\*

Chemical Structure Searching now available in Prous Science Drug  
Data Report (F452), Prous Science Drugs of the Future (F453),  
IMS R&D Focus (F445/955), Pharmaprojects (F128/928), Beilstein  
Facts (F390), Derwent Chemistry Resource (F355) and Index Chemicus  
(File 302).

\*\*\*

>>> Enter BEGIN HOMEBASE for Dialog Announcements <<<

>>> of new databases, price changes, etc. <<<

\*\*\*\*

\* \* \*

SYSTEM:HOME

Cost is in DialUnits

Menu System II: D2 version 1.7.9 term=ASCII

\*\*\* DIALOG HOMEBASE(SM) Main Menu \*\*\*

Information:

1. Announcements (new files, reloads, etc.)
2. Database, Rates, & Command Descriptions
3. Help in Choosing Databases for Your Topic
4. Customer Services (telephone assistance, training, seminars, etc.)
5. Product Descriptions

Connections:

6. DIALOG(R) Document Delivery
7. Data Star(R)

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/H = Help

/L = Logoff

/NOMENU = Command Mode

Enter an option number to view information or to connect to an online service. Enter a BEGIN command plus a file number to search a database (e.g., B1 for ERIC).

?

Terminal set to DLINK

\*\*\* DIALOG HOMEBASE(SM) Main Menu \*\*\*

Information:

1. Announcements (new files, reloads, etc.)
2. Database, Rates, & Command Descriptions
3. Help in Choosing Databases for Your Topic
4. Customer Services (telephone assistance, training, seminars, etc.)
5. Product Descriptions

Connections:

6. DIALOG(R) Document Delivery
7. Data Star(R)

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/H = Help

/L = Logoff

/NOMENU = Command Mode

Enter an option number to view information or to connect to an online service. Enter a BEGIN command plus a file number to search a database (e.g., B1 for ERIC).

? b biosci

```
>>>          44 is unauthorized
>>>          76 is unauthorized
>>>2 of the specified files are not available
      18dec05 10:40:11 User276741 Session D71.1
          $0.00    0.230 DialUnits FileHomeBase
      $0.00 Estimated cost FileHomeBase
      $0.08 TELNET
      $0.08 Estimated cost this search
      $0.08 Estimated total session cost    0.230 DialUnits
```

SYSTEM:OS - DIALOG OneSearch

```
File   5:BIOSIS Previews(R) 1969-2005/Dec W2
      (c) 2005 BIOSIS
File  24:CSA Life Sciences Abstracts 1966-2005/Nov
      (c) 2005 CSA.
File  28:Oceanic Abstracts 1966-2005/Nov
      (c) 2005 CSA.
File  34:SciSearch(R) Cited Ref Sci 1990-2005/Dec W2
      (c) 2005 Inst for Sci Info
File  35:Dissertation Abs Online 1861-2005/Nov
      (c) 2005 ProQuest Info&Learning
File  40:Enviroline(R) 1975-2005/Jul
File  41:Pollution Abstracts 1966-2005/Nov
      (c) 2005 CSA.
File  50:CAB Abstracts 1972-2005/Nov
      (c) 2005 CAB International
File  65:Inside Conferences 1993-2005/Dec W2
      (c) 2005 BLDSC all rts. reserv.
File  71:ELSEVIER BIOBASE 1994-2005/Dec W2
      (c) 2005 Elsevier Science B.V.
File  73:EMBASE 1974-2005/Dec 16
```



(c) 2005 Elsevier Science B.V.  
 File 91:MANTIS(TM) 1880-2005/Jun  
 2001 (c) Action Potential  
 File 94:JICST-EPlus 1985-2005/Oct W2  
 (c)2005 Japan Science and Tech Corp(JST)  
 File 98:General Sci Abs/Full-Text 1984-2004/Dec  
 (c) 2005 The HW Wilson Co.  
 File 110:WasteInfo 1974-2002/Jul  
 (c) 2002 AEA Techn Env.  
**\*File 110: This file is closed (no updates)**  
 File 135:NewsRx Weekly Reports 1995-2005/Dec W2  
 (c) 2005 NewsRx  
**\*File 135: Please see HELP NEWS135 for information on select**  
**journal titles.**  
 File 136:BioEngineering Abstracts-1966-2005/Nov (c) 2005 CSA.  
 File 143:Biol. & Agric. Index 1983-2005/Sep  
 (c) 2005 The HW Wilson Co  
 File 144:Pascal 1973-2005/Dec W1  
 (c) 2005 INIST/CNRS  
 File 155:MEDLINE(R) 1951-2005/Dec 07  
 (c) format only 2005 Dialog  
**\*File 155: Medline has ceased updating as of UD 20051207, until** **e**  
**the reload is complete. Please see HELP NEWS 154 for details.**  
 File 164:Allied & Complementary Medicine 1984-2005/Dec  
 (c) 2005 BLHCIS  
 File 172:EMBASE Alert 2005/Dec 16  
 (c) 2005 Elsevier Science B.V.  
 File 185:Zoological Record Online(R) 1978-2005/Dec  
 (c) 2005 BIOSIS  
 File 357:Derwent Biotech Res. \_1982-2005/Dec W3  
 (c) 2005 Thomson Derwent & ISI  
 File 369:New Scientist 1994-2005/Aug W2  
 (c) 2005 Reed Business Information Ltd.  
 File 370:Science 1996-1999/Jul W3  
 (c) 1999 AAAS  
**\*File 370: This file is closed (no updates). Use File 47 for more current**  
**information.**  
 File 391:Beilstein Reactions 2005/Q2  
 (c) 2005 Beilstein GmbH  
 File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec  
 (c) 1998 Inst for Sci Info  
 File 467:ExtraMED(tm) 2000/Dec  
 (c) 2001 Informania Ltd.  
**\*File 467: F467 no longer updates; see Help News467.** **7.**

| Set | Items  | Description   |
|-----|--------|---|
| ?   | s      | ((cytochrome (w) P450 (w) 2D6) or hCYP2D6 or CYP2D6 or CYP-2D6 or (CYP (w) 2D6)) (n) heterologous |
|     | 523248 | CYTOCHROME  |
|     | 182280 | P450  |
|     | 7900   | 2D6   |
|     | 4389   | CYTOCHROME (W) P450 (W) 2D6   |
|     | 0      | HCYP2D6   |
|     | 14594  | CYP2D6  |
|     | 1      | CYP-2D6   |
|     | 28396  | CYP   |
|     | 7900   | 2D6   |
|     | 855    | CYP (W) 2D6   |
|     | 201138 | HETEROLOGOUS  |
| S1  | 2      | ((CYTOCHROME (W) P450 (W) 2D6) OR HCYP2D6 OR CYP2D6 OR  |

CYP-2D6 OR (CYP (W) 2D6)) (N) HETEROLOGOUS

? s s1 and allele  
2 S1  
377896 ALLELE

S2 0 S1 AND ALLELE

? s (hCYP2D6\*1 or hCYP2D6\*2 or hCYP2D6\*9 or hCYP2D6\*10 or hCYP2D6\*17) and allele  
0 HCYP2D6  
28655803 1  
0 HCYP2D6  
30080941 2  
0 HCYP2D6  
6561683 9  
0 HCYP2D6  
9403086 10  
0 HCYP2D6  
2647708 17  
377896 ALLELE

S3 0 (HCYP2D6\*1 OR HCYP2D6\*2 OR HCYP2D6\*9 OR HCYP2D6\*10 OR HCYP2D6\*17) AND ALLELE

? s (hCYP2D6(w)1 or hCYP2D6(w)2 or hCYP2D6(w)9 or hCYP2D6(w)10 or hCYP2D6(w)17) and allele  
0 HCYP2D6  
28655803 1  
0 HCYP2D6(W)1  
0 HCYP2D6  
30080941 2  
0 HCYP2D6(W)2  
0 HCYP2D6  
6561683 9  
0 HCYP2D6(W)9  
0 HCYP2D6  
9403086 10  
0 HCYP2D6(W)10  
0 HCYP2D6  
2647708 17  
0 HCYP2D6(W)17  
377896 ALLELE

S4 0 (HCYP2D6(W)1 OR HCYP2D6(W)2 OR HCYP2D6(W)9 OR HCYP2D6(W)10 OR HCYP2D6(W)17) AND ALLELE

? s ((cytochrome (w) P450 (w) 2D) or hCYP2D or CYP2D or CYP-2D or (CYP (w) 2D)) and heterologous  
523248 CYTOCHROME  
182280 P450  
190563 2D  
247 CYTOCHROME (W) P450 (W) 2D  
0 HCYP2D  
1292 CYP2D  
0 CYP-2D  
28396 CYP  
190563 2D  
92 CYP(W)2D  
201138 HETEROLOGOUS

S5 13 ((CYTOCHROME (W) P450 (W) 2D) OR HCYP2D OR CYP2D OR CYP-2D OR (CYP (W) 2D)) AND HETEROLOGOUS

? s s5 and allele  
13 S5  
377896 ALLELE

S6 2 S5 AND ALLELE

? rd

>>>Duplicate detection is not supported for File 391.

>>>Records from unsupported files will be retained in the RD set.

S7 2 RD (unique items)

? s s7 not pd>000314

>>>File 24 processing for PD=000314 : PD=|

>>> started at PD=20000315 stopped at PD=99880000

>>>File 34 processing for PD=000314 : PD=|

>>> started at PD=20000315 stopped at PD=20050812

>>>One or more prefixes are unsupported

>>> or undefined in one or more files.

>>>File 73 processing for PD=000314 : PD=|

>>> started at PD=000315 stopped at PD=051119

Processing

Processed 10 of 29 files ...

>>>File 144 processing for PD=000314 : PD=|

>>> started at PD=20000315 stopped at PD=20050726

Completed processing all files

2 S7

14196525 PD>000314

S8 2 S7 NOT PD>000314

? type s8/medium,k/1-2

8/K/1 (Item 1 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

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04369150 Genuine Article#: RY558 No. References: 22

Title: AN UNEQUAL CROSS-OVER EVENT WITHIN THE CYP2D GENE-CLUSTER  
GENERATES A CHIMERIC CYP2D7/CYP2D6 GENE WHICH IS ASSOCIATED WITH THE  
POOR METABOLIZER PHENOTYPE

Author(s): PANSERAT S; MURA C; GERARD N; VINCENTVIRY M; GALTEAU MM;  
JACQZAIGRAIN E; KRISHNAMOORTHY R

Corporate Source: HOP ROBERT DEBRE,INSERM,U120,48 BLVD SERURIER/F-75019  
PARIS//FRANCE/; HOP ROBERT DEBRE,INSERM,U120/F-75019 PARIS//FRANCE/;  
HOP ROBERT DEBRE,DEPT PHARMACOL CLIN/F-75019 PARIS//FRANCE/; CNRS,URA  
597,LAB CTR MED PREVENT/VANDOEUVRE NANCY//FRANCE/

Journal: BRITISH JOURNAL OF CLINICAL PHARMACOLOGY, 1995, V40, N4 (OCT), P  
361-367

ISSN: 0306-5251

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

Title: AN UNEQUAL CROSS-OVER EVENT WITHIN THE CYP2D GENE-CLUSTER  
GENERATES A CHIMERIC CYP2D7/CYP2D6 GENE WHICH IS ASSOCIATED WITH THE  
POOR METABOLIZER...

Abstract: 1 The study of the CYP2D genotype and phenotype of a Caucasian  
family revealed that a XbaI-9 kb allele was associated with the poor  
metabolizer phenotype.

2 A Polymerase Chain Reaction (PCR)-based assay...

...the previously described mutations D6A and D6B are not associated with  
the XbaI-9 kb allele .

3 To explore the molecular basis of the poor metabolizer phenotype  
associated with the XbaI-9 kb allele , complete sequencing of the nine  
exons and intron-exon boundaries of the CYP2D6 gene was...

...primer.

*Request  
from  
STIC*

5 Sequence data derived from this amplified product revealed that the XbaI-9 kb **allele** corresponds to a novel rearrangement of the locus. This involved a deletion of an approximately...  
 ...Research Fronts: EPILEPSY; DEBRISOQUINE METABOLIC PHENOTYPE; ANTIEPILEPTIC DRUGS; MEPHENYTOIN OXIDATION POLYMORPHISMS; IN-VITRO MODEL)  
 93-4847 001 ( **HETEROLOGOUS** EXPRESSION; CHROMOSOMAL DNA; GENE ENCODING METHYLMALONYL-COENZYME-A MUTASE)

8/K/2 (Item 1 from file: 98)  
 DIALOG(R)File 98:General Sci Abs/Full-Text  
 (c) 2005 The HW Wilson Co. All rts. reserv.

04007592 H.W. WILSON RECORD NUMBER: BGS199007592 (USE FORMAT 7 FOR FULLTEXT)

**Cytochromes P450 and species differences in xenobiotic metabolism and activation of carcinogen.**

Lewis, David F. V

Ioannides, Costas; Parke, Dennis V

Environmental Health Perspectives (Environ Health Perspect) v. 106 no10 (Oct. 1998) p. 633-41

SPECIAL FEATURES: bibl il ISSN: 0091-6765

LANGUAGE: English

COUNTRY OF PUBLICATION: United States

WORD COUNT: 8637

(USE FORMAT 7 FOR FULLTEXT)

TEXT:

... recent advances in molecular biological techniques that enable the stable expression of human P450s in **heterologous** systems, together with test procedures for genotyping an individual's P450 complement, point the way...be potentially useful for differentiating between substrates of different P450 isozymes, primarily CYP3A, CYP2C, and **CYP2D** isoforms, as these constitute the P450 enzymes in human liver that metabolize the large majority...values of P450 substrates are greater than zero, although there are exceptions, such as some **CYP2D** and CYP2E substrates. CYP2D6 substrates usually possess a protonatable nitrogen atom 5-7 A from...C, Brockmoller J, Bauer S, Roots I. Cytochrome P450 2D6 variants in a caucasian population: **allele** frequencies and phenotypic consequences. Am J Hum Genet 60:284-295 (1997).

55. Lewis DFV...

? ds

| Set | Items | Description   |
|-----|-------|---|
| S1  | 2     | ((CYTOCHROME (W) P450 (W) 2D6) OR HCYP2D6 OR CYP2D6 OR CYP-2D6 OR (CYP (W) 2D6)) (N) HETEROLOGOUS |
| S2  | 0     | S1 AND ALLELE   |
| S3  | 0     | (HCYP2D6*1 OR HCYP2D6*2 OR HCYP2D6*9 OR HCYP2D6*10 OR HCYP2D6*17) AND ALLELE                      |
| S4  | 0     | (HCYP2D6(W)1 OR HCYP2D6(W)2 OR HCYP2D6(W)9 OR HCYP2D6(W- )10 OR HCYP2D6(W)17) AND ALLELE          |
| S5  | 13    | ((CYTOCHROME (W) P450 (W) 2D) OR HCYP2D OR CYP2D OR CYP-2D OR (CYP (W) 2D)) AND HETEROLOGOUS      |
| S6  | 2     | S5 AND ALLELE   |
| S7  | 2     | RD (unique items)   |
| S8  | 2     | S7 NOT PD>000314  |

? s (V79MZh2D6\*1 or V79MZh2D6\*2 or V79MZh2D6\*9 or V79MZh2D6\*10 or V79MZh2D6\*17)

*Request  
for  
S71C*

```

0 V79MZH2D6
28655803 1
0 V79MZH2D6
30080941 2
0 V79MZH2D6
6561683 9
0 V79MZH2D6
9403086 10
0 V79MZH2D6
2647708 17
S9 0 (V79MZH2D6*1 OR V79MZH2D6*2 OR V79MZH2D6*9 OR
V79MZH2D6*10 OR V79MZH2D6*17)
? s ((chinese (w) hamster (w) lung (w) fibroblast) or v79 or (v79 (w) cells)
or (chinese (w) hamster (w) fibroblast))
Processing
Processed 20 of 29 files ...
Sending Break...
?s ((chinese (w) hamster (w) lung (w) fibroblast) or (v79 (w) cells) or
(chinese (w) hamster (w) fibroblast))
Processing
418733 CHINESE
353485 HAMSTER
1868728 LUNG
394327 FIBROBLAST
1099 CHINESE (W) HAMSTER (W) LUNG (W) FIBROBLAST
19964 V79
9813566 CELLS
11588 V79 (W) CELLS
418733 CHINESE
353485 HAMSTER
394327 FIBROBLAST
925 CHINESE (W) HAMSTER (W) FIBROBLAST
S10 13319 ((CHINESE (W) HAMSTER (W) LUNG (W) FIBROBLAST) OR (V79
(W) CELLS) OR (CHINESE (W) HAMSTER (W) FIBROBLAST))
? s s10 and ((cytochrome (w) P450 (w) 2D) or hCYP2D or CYP2D or CYP-2D or (CYP
(w) 2D)) and heterologous
13319 S10
523248 CYTOCHROME
182280 P450
190563 2D
247 CYTOCHROME (W) P450 (W) 2D
0 HCYP2D
1292 CYP2D
0 CYP-2D
28396 CYP
190563 2D
92 CYP (W) 2D
201138 HETEROLOGOUS
S11 0 S10 AND ((CYTOCHROME (W) P450 (W) 2D) OR HCYP2D OR CYP2D
OR CYP-2D OR (CYP (W) 2D)) AND HETEROLOGOUS
? s ((emulgen (w) 913) or (non-ionic (w) detergent)) and (cytochrome (w) P450)
and (reduced (w) spectr??)
544 EMULGEN
7269 913
212 EMULGEN (W) 913
1812 NON-IONIC
145289 DETERGENT
0 NON-IONIC (W) DETERGENT
523248 CYTOCHROME
182280 P450
165643 CYTOCHROME (W) P450

```

```

3861799 REDUCED
2764048 SPECTR??
965 REDUCED(W)SPECTR??
S12 0 ((EMULGEN (W) 913) OR (NON-IONIC (W) DETERGENT)) AND
(CYTOCHROME (W) P450) AND (REDUCED (W) SPECTR??)
? s ((emulgen (w) 913) or (non-ionic (w) detergent)) and (cytochrome (w) P450)
544 EMULGEN
7269 913
212 EMULGEN(W)913
1812 NON-IONIC
145289 DETERGENT
0 NON-IONIC(W)DETERGENT
523248 CYTOCHROME
182280 P450
165643 CYTOCHROME(W)P450
S13 87 ((EMULGEN (W) 913) OR (NON-IONIC (W) DETERGENT)) AND
(CYTOCHROME (W) P450)
? s s13 and (((carbon (w) monoxide) or CO) or (CO/reduced (w) spectrum))
>>>Term "REDUCED" is not defined in one or more files
87 S13
2313423 CARBON
217224 MONOXIDE
187872 CARBON(W)MONOXIDE
3308130 CO
3308130 CO/REDUCED
1254983 SPECTRUM
226 CO/REDUCED(W)SPECTRUM
S14 9 S13 AND (((CARBON (W) MONOXIDE) OR CO) OR (CO/REDUCED (W)
SPECTRUM))
? rdd
>>>Unrecognizable Command
? rd

```

>>>Duplicate detection is not supported for File 391.

>>>Records from unsupported files will be retained in the RD set.

```

S15 5 RD (unique items)
? s s15 not pd>000314
>>>File 24 processing for PD=000314 : PD=|
>>> started at PD=20000315 stopped at PD=99880000
>>>File 34 processing for PD=000314 : PD=|
>>> started at PD=20000315 stopped at PD=20050812
>>>One or more prefixes are unsupported
>>> or undefined in one or more files.
>>>File 73 processing for PD=000314 : PD=|
>>> started at PD=000315 stopped at PD=051119
>>>File 144 processing for PD=000314 : PD=|
>>> started at PD=20000315 stopped at PD=20050726
5 S15
14196525 PD>000314
S16 3 S15 NOT PD>000314
? type s16/medium,k/all

```

16/K/1 (Item 1 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
(c) 2005 BIOSIS. All rts. reserv.

0011797272 BIOSIS NO.: 199900056932

**Preparation of highly purified cytochrome P4501A1 from leaping mullet (*Liza saliens*) liver microsomes and its biocatalytic, molecular and immunochemical properties**

AUTHOR: Sen Alaattin; Arinc Emel (Reprint)  
AUTHOR ADDRESS: Joint Grad. Program Biochem., Dep. Biol. Sci., Middle East  
Tech. Univ., 06531 Ankara, Turkey\*\*Turkey  
JOURNAL: Comparative Biochemistry and Physiology C Pharmacology Toxicology  
and Endocrinology 121 (1-3): p249-265 Nov., 1998 1998  
MEDIUM: print  
ISSN: 0742-8413  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

...ABSTRACT: Izmir Bay, Aegean coast of Turkey. Purification of cytochrome  
P4501A1 involved anion exchange chromatography of **Emulgen 913** -cholate  
solubilized microsomes on first- and second-DEAE-cellulose columns,  
hydrophobic interaction chromatographies of the...

...spectrum of the purified cytochrome P4501A1 fractions showed maximal  
absorption at 417.5 nm and CO -difference spectrum of dithionite-reduced  
cytochrome P4501A1 gave a peak at 448 nm. Purified P4501A1...

...in the O-deethylation of 7-ethoxyresorufin in the reconstituted system  
containing purified fish liver **cytochrome P450** reductase and  
synthetic lipid. However, it was unable to catalyze the oxidation of the  
other...

16/K/2 (Item 1 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 2005 Elsevier Science B.V. All rts. reserv.

*Request*

02376474 EMBASE No: 1983201485  
**Multiple forms of cytochrome P-450 in kidney cortex microsomes of rabbits  
treated with 3-methylcholanthrene**  
Ogita K.; Kusunose E.; Ichihara K.; Kusunose M.  
Toneyama Inst. Tuberc. Res., Osaka City Univ. Med. Sch., Toneyama,  
Toyonaka 560 Japan  
Journal of Biochemistry ( J. BIOCHEM. ) (Japan) 1982, 92/3 (921-928)  
CODEN: JOBIA  
DOCUMENT TYPE: Journal  
LANGUAGE: ENGLISH

...20 mM potassium phosphate buffer in the presence of 0.4% cholate and  
0.08% **Emulgen 913** . This fraction was partially purified to a specific  
content of 4.49 nmol of cytochrome...

...1 M potassium phosphate buffer in the presence of 0.4% cholate and 0.08%  
**Emulgen 913** , was purified to a specific content of 12.0 nmol of  
cytochrome P-450/mg...

...58,000. This cytochrome P-450 showed a maximal peak at 448 nm in the  
**carbon monoxide** difference spectrum of its reduced form. Its absolute  
spectrum of the oxidized form had low...

DRUG DESCRIPTORS:

\*3 methylcholanthrene; \* **cytochrome p450**

CAS REGISTRY NO.: 56-49-5 (3 methylcholanthrene); 9035-51-2 ( **cytochrome  
p450** )

16/K/3 (Item 2 from file: 73)  
DIALOG(R)File 73:EMBASE

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00748096 EMBASE No: 1977093470

**Preparation and properties of partially purified pulmonary cytochrome P 450 from rabbits**

Arinc E.; Philpot R.M.

Pharmacol. Branch, Nat. Inst. Environm. Hlth Sci., NIH, Research Triangle Park, N.C. 27709 United States

Journal of Biological Chemistry ( J. BIOL. CHEM. ) 1976, 251/11 (3213-3220)

CODEN: JBCHA

DOCUMENT TYPE: Journal

LANGUAGE: ENGLISH

...absence of glycerol. Further purification was achieved by chromatography on DEAE cellulose and hydroxylapatite using **Emulgen 913** as an eluent. Partially purified preparations containing up to 7.4 nmol of cytochrome P...

...reductase activity and cytochromes b<sub>5</sub>D<sub>5</sub> and P 420. However, epoxide hydrase was found to co purify with cytochrome P 450. The CO difference spectrum of dithionite reduced purified cytochrome showed the expected peak at 450 nm. However...

**DRUG DESCRIPTORS:**

\* **cytochrome p450**

CAS REGISTRY NO.: 9035-51-2 ( **cytochrome p450** )

? ds

| Set  | Items | Description  |
|--|-------|--|
| S1   | 2     | ((CYTOCHROME (W) P450 (W) 2D6) OR HCYP2D6 OR CYP2D6 OR CYP-2D6 OR (CYP (W) 2D6)) (N) HETEROLOGOUS          |
| S2   | 0     | S1 AND ALLELE  |
| S3   | 0     | (HCYP2D6*1 OR HCYP2D6*2 OR HCYP2D6*9 OR HCYP2D6*10 OR HCYP2D6*17) AND ALLELE                               |
| S4   | 0     | (HCYP2D6(W)1 OR HCYP2D6(W)2 OR HCYP2D6(W)9 OR HCYP2D6(W)10 OR HCYP2D6(W)17) AND ALLELE                     |
| S5   | 13    | ((CYTOCHROME (W) P450 (W) 2D) OR HCYP2D OR CYP2D OR CYP-2D OR (CYP (W) 2D)) AND HETEROLOGOUS               |
| S6   | 2     | S5 AND ALLELE  |
| S7   | 2     | RD (unique items)  |
| S8   | 2     | S7 NOT PD>000314   |
| S9   | 0     | (V79MZH2D6*1 OR V79MZH2D6*2 OR V79MZH2D6*9 OR V79MZH2D6*10 OR V79MZH2D6*17)                                |
| S10  | 13319 | ((CHINESE (W) HAMSTER (W) LUNG (W) FIBROBLAST) OR (V79 (W) CELLS) OR (CHINESE (W) HAMSTER (W) FIBROBLAST)) |
| S11  | 0     | S10 AND ((CYTOCHROME (W) P450 (W) 2D) OR HCYP2D OR CYP2D OR CYP-2D OR (CYP (W) 2D)) AND HETEROLOGOUS       |
| S12  | 0     | ((EMULGEN (W) 913) OR (NON-IONIC (W) DETERGENT)) AND (CYTOCHROME (W) P450) AND (REDUCED (W) SPECTR??)      |
| S13  | 87    | ((EMULGEN (W) 913) OR (NON-IONIC (W) DETERGENT)) AND (CYTOCHROME (W) P450)                                 |
| S14  | 9     | S13 AND (((CARBON (W) MONOXIDE) OR CO) OR (CO/REDUCED (W) - SPECTRUM))                                     |
| S15  | 5     | RD (unique items)  |
| S16  | 3     | S15 NOT PD>000314  |
| ? s (((emulgen (w) 913) or (non-ionic (w) detergent)) and (cytochrome (w) P450) and (CO (w) difference (w) spectra)) |       |  |
|  | 544   | EMULGEN  |
|  | 7269  | 913  |
|  | 212   | EMULGEN(W)913  |
|  | 1812  | NON-IONIC  |



145289 DETERGENT  
       0 NON-IONIC (W) DETERGENT  
 523248 CYTOCHROME  
 182280 P450  
 165643 CYTOCHROME (W) P450  
 3308130 CO  
 2653324 DIFFERENCE  
 1103503 SPECTRA  
       447 CO (W) DIFFERENCE (W) SPECTRA  
 S17      1 (((EMULGEN (W) 913) OR (NON-IONIC (W) DETERGENT))) AND  
           (CYTOCHROME (W) P450) AND (CO (W) DIFFERENCE (W)  
           SPECTRA))  
 ? type s17/medium,k/

17/K/1 (Item 1 from file: 357)  
 DIALOG(R) File 357:Derwent Biotech Res.  
 (c) 2005 Thomson Derwent & ISI. All rts. reserv.

*Parent*

0278618 DBR Accession No.: 2002-02759 PATENT  
**Test system comprising cell expressing different cytochrome - P450 2D6  
 alleles to investigate genetically caused metabolite toxicity and to  
 determine toxic, mutagenic or carcinogenic effect of compounds -  
 plasmid pSV450h2D6-asterisk-1-mediated human peptide gene transfer**  
 AUTHOR: Doehmer J; Krebsfaenger N; Eichelbaum M; Zanger U  
 CORPORATE SOURCE: Graefelfing, Germany.  
 PATENT ASSIGNEE: Doehmer J 2001  
 PATENT NUMBER: DE 10012220 PATENT DATE: 20010920 WPI ACCESSION NO.:  
       2001-626902 (200173)  
 PRIORITY APPLIC. NO.: DE 1012220 APPLIC. DATE: 20000314  
 NATIONAL APPLIC. NO.: DE 1012220 APPLIC. DATE: 20000314  
 LANGUAGE: German

**Test system comprising cell expressing different cytochrome - P450 2D6  
 alleles to investigate genetically caused metabolite toxicity and to  
 determine toxic, mutagenic or carcinogenic...**

ABSTRACT: A test system containing cells expressing a human **cytochrome -  
 P450 2D6** allele heterolog and at least 3 P450 2D6 alleles is claimed.  
 Also claimed are: drug screening for compounds that are metabolized by  
 human **cytochrome - P450 2D6**, by contacting the cells of the test  
 system with a substance and measuring metabolite...

... system; and quantifying chytochrome-P450 content by solubilizing P450  
 cytochromes with a non-ionizing surfactant **Emulgen 913**,  
 centrifuging the mixture and then measuring by **CO difference  
 spectra**. In an example, V7MZh2D6-asterisk-1, -asterisk-2,  
 -asterisk-9, asterisk-10 and asterick-17...

DESCRIPTORS: ...9, plasmid pSV450h2D6-asterisk-10, plasmid  
 pSV450h2D6-asterick-17, plasmid pSV2neo-DNA-mediated human recombinant  
**cytochrome - P450 2D6** allele gene transfer, expression in V29MZ cell,  
 appl. metabolite toxicity, mutagentic, carcinogenic effect mammal...

? rd

>>>Duplicate detection is not supported for File 391.

>>>Records from unsupported files will be retained in the RD set.

S18      1 RD (unique items)  
 ? ds

| Set | Items | Description   |
|-----|-------|---|
| S1  | 2     | ((CYTOCHROME (W) P450 (W) 2D6) OR HCYP2D6 OR CYP2D6 OR CYP- |

-2D6 OR (CYP (W) 2D6)) (N) HETEROLOGOUS  
 S2 0 S1 AND ALLELE  
 S3 0 (HCYP2D6\*1 OR HCYP2D6\*2 OR HCYP2D6\*9 OR HCYP2D6\*10 OR  
 HCYP2D6\*17) AND ALLELE  
 S4 0 (HCYP2D6(W)1 OR HCYP2D6(W)2 OR HCYP2D6(W)9 OR HCYP2D6(W)-  
 )10 OR HCYP2D6(W)17) AND ALLELE  
 S5 13 ((CYTOCHROME (W) P450 (W) 2D) OR HCYP2D OR CYP2D OR CYP-2D  
 OR (CYP (W) 2D)) AND HETEROLOGOUS  
 S6 2 S5 AND ALLELE  
 S7 2 RD (unique items)  
 S8 2 S7 NOT PD>000314  
 S9 0 (V79MZH2D6\*1 OR V79MZH2D6\*2 OR V79MZH2D6\*9 OR V79MZH2D6\*10  
 OR V79MZH2D6\*17)  
 S10 13319 ((CHINESE (W) HAMSTER (W) LUNG (W) FIBROBLAST) OR (V79 (W)  
 CELLS) OR (CHINESE (W) HAMSTER (W) FIBROBLAST))  
 S11 0 S10 AND ((CYTOCHROME (W) P450 (W) 2D) OR HCYP2D OR CYP2D OR  
 CYP-2D OR (CYP (W) 2D)) AND HETEROLOGOUS  
 S12 0 ((EMULGEN (W) 913) OR (NON-IONIC (W) DETERGENT)) AND (CYTO-  
 CHROME (W) P450) AND (REDUCED (W) SPECTR??)  
 S13 87 ((EMULGEN (W) 913) OR (NON-IONIC (W) DETERGENT)) AND (CYTO-  
 CHROME (W) P450)  
 S14 9 S13 AND (((CARBON (W) MONOXIDE) OR CO) OR (CO/REDUCED (W) -  
 SPECTRUM))  
 S15 5 RD (unique items)  
 S16 3 S15 NOT PD>000314  
 S17 1 (((EMULGEN (W) 913) OR (NON-IONIC (W) DETERGENT)) AND (CYT-  
 OCHROME (W) P450) AND (CO (W) DIFFERENCE (W) SPECTRA))  
 S18 1 RD (unique items)

? b 411

18dec05 11:00:28 User276741 Session D71.2  
 \$7.25 1.230 DialUnits File5  
 \$0.16 1 Type(s) in Format 95 (KWIC)  
 \$0.16 1 Types  
 \$7.41 Estimated cost File5  
 \$3.09 0.498 DialUnits File24  
 \$3.09 Estimated cost File24  
 \$0.93 0.149 DialUnits File28  
 \$0.93 Estimated cost File28  
 \$45.57 2.058 DialUnits File34  
 \$6.43 1 Type(s) in Format 3  
 \$6.43 1 Types  
 \$52.00 Estimated cost File34  
 \$0.64 0.156 DialUnits File35  
 \$0.64 Estimated cost File35  
 \$0.83 0.115 DialUnits File40  
 \$0.83 Estimated cost File40  
 \$0.76 0.122 DialUnits File41  
 \$0.76 Estimated cost File41  
 \$1.10 0.240 DialUnits File50  
 \$1.10 Estimated cost File50  
 \$0.36 0.095 DialUnits File65  
 \$0.36 Estimated cost File65  
 \$6.08 0.695 DialUnits File71  
 \$6.08 Estimated cost File71  
 \$14.59 1.372 DialUnits File73  
 \$5.88 2 Type(s) in Format 3  
 \$5.88 2 Types  
 \$20.47 Estimated cost File73  
 \$0.36 0.084 DialUnits File91  
 \$0.36 Estimated cost File91  
 \$0.90 0.256 DialUnits File94

```

$0.90 Estimated cost File94
      $1.07      0.251 DialUnits File98
      $1.45      1 Type(s) in Format 3
      $1.45      1 Types
$2.52 Estimated cost File98
      $0.36      0.063 DialUnits File110
$0.36 Estimated cost File110
      $1.10      0.204 DialUnits File135
$1.10 Estimated cost File135
      $0.76      0.122 DialUnits File136
$0.76 Estimated cost File136
      $0.62      0.208 DialUnits File143
$0.62 Estimated cost File143
      $4.61      1.023 DialUnits File144
$4.61 Estimated cost File144
      $4.17      1.227 DialUnits File155
$4.17 Estimated cost File155
      $0.33      0.095 DialUnits File164
$0.33 Estimated cost File164
      $1.16      0.109 DialUnits File172
$1.16 Estimated cost File172
      $0.72      0.118 DialUnits File185
$0.72 Estimated cost File185
      $4.53      0.215 DialUnits File357
      $2.45      1 Type(s) in Format 3
      $2.45      1 Types
$6.98 Estimated cost File357
      $0.31      0.088 DialUnits File369
$0.31 Estimated cost File369
      $0.25      0.070 DialUnits File370
$0.25 Estimated cost File370
      $0.00      0.140 DialUnits File391
$0.00 Estimated cost File391
      $4.26      0.192 DialUnits File434
$4.26 Estimated cost File434
      $0.36      0.057 DialUnits File467
$0.36 Estimated cost File467
      OneSearch, 29 files, 11.256 DialUnits FileOS
$5.60 TELNET
$129.04 Estimated cost this search
$129.12 Estimated total session cost 11.486 DialUnits

```

File 411:DIALINDEX(R)

DIALINDEX(R)

(c) 2005 Dialog

```

*** DIALINDEX search results display in an abbreviated ***
*** format unless you enter the SET DETAIL ON command. ***
? s (((cytochrome (w) P450 (w) 2D6) or hCYP2D6 or CYP2D6 or CYP-2D6 or (CYP
(w) 2D6)) (n) heterologous) and allele
>>>No files selected. Use SET FILES to choose at least two files; then use
      SELECT alone to reissue this SELECT statement.
? sf allbiosci
      You have 81 files in your file list.
      (To see banners, use SHOW FILES command)
? s (((cytochrome (w) P450 (w) 2D6) or hCYP2D6 or CYP2D6 or CYP-2D6 or (CYP
(w) 2D6)) (n) heterologous) and allele

```

Your SELECT statement is:

```
s (((cytochrome (w) P450 (w) 2D6) or hCYP2D6 or CYP2D6 or CYP-2D6 or
```

(CYP (w) 2D6)) (n) heterologous) and allele

| Items    | File     |
|----------|----------|
| -----    | -----    |
| Examined | 50 files |

No files have one or more items; file list includes 81 files.

? s (((cytochrome (w) P450 (w) 2D6) or hCYP2D6 or CYP2D6 or CYP-2D6 or (CYP (w) 2D6)) and heterologous) and allele

Your SELECT statement is:

s (((cytochrome (w) P450 (w) 2D6) or hCYP2D6 or CYP2D6 or CYP-2D6 or (CYP (w) 2D6)) and heterologous) and allele

| Items    | File  |
|----------|---|
| -----    | -----   |
| 1        | 5: Biosis Previews(R)_1969-2005/Dec W2            |
| 6        | 34: SciSearch(R) Cited Ref Sci 1990-2005/Dec W2   |
| 1        | 71: ELSEVIER BIOBASE_1994-2005/Dec W2             |
| 1        | 73: EMBASE_1974-2005/Dec 16                       |
| 1        | 94: JICST-EPlus_1985-2005/Oct W2                  |
| 1        | 98: General Sci Abs/Full-Text_1984-2004/Dec       |
| 1        | 155: MEDLINE(R)_1951-2005/Dec 07                  |
| Examined | 50 files  |
| 1        | 444: New England Journal of Med._1985-2005/Dec W1 |

8 files have one or more items; file list includes 81 files.

? b 4,34,71,73,94,98,155,444

18dec05 11:02:50 User276741 Session D71.3  
\$3.37 1.272 DialUnits File411  
\$3.37 Estimated cost File411  
\$0.80 TELNET  
\$4.17 Estimated cost this search  
\$133.29 Estimated total session cost 12.759 DialUnits

SYSTEM:OS - DIALOG OneSearch

File 4:INSPEC 1983-2005/Dec W2  
(c) 2005 Institution of Electrical Engineers  
File 34:SciSearch(R) Cited Ref Sci 1990-2005/Dec W2  
(c) 2005 Inst for Sci Info  
File 71:ELSEVIER BIOBASE 1994-2005/Dec W2  
(c) 2005 Elsevier Science B.V.  
File 73:EMBASE 1974-2005/Dec 16  
(c) 2005 Elsevier Science B.V.  
File 94:JICST-EPlus 1985-2005/Oct W2  
(c)2005 Japan Science and Tech Corp(JST)  
File 98:General Sci Abs/Full-Text 1984-2004/Dec  
(c) 2005 The HW Wilson Co.  
File 155:MEDLINE(R). 1951-2005/Dec 07  
(c) format only 2005 Dialog

\*File 155: Medline has ceased updating as of UD 20051207, until the reload is complete. Please see HELP NEWS 154 for details. e

File 444:New England Journal of Med. 1985-2005/Dec W1  
(c) 2005 Mass. Med. Soc.

| Set | Items | Description |
|-----|-------|-------------|
| --- | ----- | -----       |

? s (((cytochrome (w) P450 (w) 2D6) or hCYP2D6 or CYP2D6 or CYP-2D6 or (CYP

(w) 2D6)) and heterologous) and allele  
 289459 CYTOCHROME  
 108919 P450  
 5163 2D6  
 2898 CYTOCHROME(W) P450 (W) 2D6  
 0 HCYP2D6  
 9587 CYP2D6  
 1 CYP-2D6  
 17735 CYP  
 5163 2D6  
 568 CYP(W) 2D6  
 120291 HETEROLOGOUS  
 217212 ALLELE  
 S1 12 (((CYTOCHROME (W) P450 (W) 2D6) OR HCYP2D6 OR CYP2D6 OR  
 CYP-2D6 OR (CYP (W) 2D6)) AND HETEROLOGOUS) AND ALLELE

? rd

S2 9 RD (unique items)  
 ? s s2 not pd>000314  
 >>>File 34 processing for PD=000314 : PD=|  
 >>> started at PD=20000315 stopped at PD=20050812  
 >>>File 73 processing for PD=000314 : PD=|  
 >>> started at PD=000315 stopped at PD=051119  
 >>>One or more prefixes are unsupported  
 >>> or undefined in one or more files.

9 S2  
 9989781 PD>000314  
 S3 7 S2 NOT PD>000314  
 ? type s3/medium,k/1-7

### 3/K/1 (Item 1 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
 (c) 2005 Inst for Sci Info. All rts. reserv.

07434814 Genuine Article#: 165HM No. References: 530

**Title: Genetic polymorphisms of human N-acetyltransferase, cytochrome P450, glutathione-S-Transferase, and epoxide hydrolase enzymes: Relevance to xenobiotic metabolism and toxicity**

Author(s): Wormhoudt LW; Commandeur JNM; Vermeulen NPE (REPRINT)  
 Corporate Source: FREE UNIV AMSTERDAM, LEIDEN AMSTERDAM CTR DRUG RES, DIV MOL TOXICOL, DEPT PHARMACOCHEM/NL-1081 HV AMSTERDAM//NETHERLANDS/ (REPRINT); FREE UNIV AMSTERDAM, LEIDEN AMSTERDAM CTR DRUG RES, DIV MOL TOXICOL, DEPT PHARMACOCHEM/NL-1081 HV AMSTERDAM//NETHERLANDS/

Journal: CRITICAL REVIEWS IN TOXICOLOGY, 1999, V29, N1, P59-124

ISSN: 1040-8444 Publication date: 19990000

Publisher: CRC PRESS INC, 2000 CORPORATE BLVD NW, JOURNALS CUSTOMER SERVICE, BOCA RATON, FL 33431

Language: English Document Type: REVIEW (ABSTRACT AVAILABLE)

...Abstract: described in which wild-type and mutant alleles of biotransformation enzymes have been expressed in **heterologous** systems to study the molecular genetics and the metabolism and pharmacological or toxicological effects of...

...Identifiers--HUMAN-LYMPHOCYTES; POLYMERASE CHAIN-REACTION; HUMAN LIVER-MICROSOMES; DEBRISOQUINE OXIDATION POLYMORPHISM; CHROMATID EXCHANGE INDUCTION; VARIANT **CYP2D6 ALLELE** ; LUNG-CANCER PATIENTS; STATE PLASMA-LEVELS

### 3/K/2 (Item 2 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
 (c) 2005 Inst for Sci Info. All rts. reserv.

04369150 Genuine Article#: RY558 No. References: 22

**Title: AN UNEQUAL CROSS-OVER EVENT WITHIN THE CYP2D GENE-CLUSTER GENERATES A CHIMERIC CYP2D7/ CYP2D6 GENE WHICH IS ASSOCIATED WITH THE POOR METABOLIZER PHENOTYPE**

Author(s): PANSERAT S; MURA C; GERARD N; VINCENTVIRY M; GALTEAU MM; JACQZAIGRAIN E; KRISHNAMOORTHY R

Corporate Source: HOP ROBERT DEBRE, INSERM, U120, 48 BLVD SERURIER/F-75019 PARIS//FRANCE//; HOP ROBERT DEBRE, INSERM, U120/F-75019 PARIS//FRANCE//; HOP ROBERT DEBRE, DEPT PHARMACOL CLIN/F-75019 PARIS//FRANCE//; CNRS, URA 597, LAB CTR MED PREVENT/VANDOEUVRE NANCY//FRANCE/

Journal: BRITISH JOURNAL OF CLINICAL PHARMACOLOGY, 1995, V40, N4 (OCT), P 361-367

ISSN: 0306-5251

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

**Title: AN UNEQUAL CROSS-OVER EVENT WITHIN THE CYP2D GENE-CLUSTER GENERATES A CHIMERIC CYP2D7/ CYP2D6 GENE WHICH IS ASSOCIATED WITH THE POOR METABOLIZER PHENOTYPE**

...Abstract: the CYP2D genotype and phenotype of a Caucasian family revealed that a XbaI-9 kb **allele** was associated with the poor metabolizer phenotype.

2 A Polymerase Chain Reaction (PCR)-based assay...

...the previously described mutations D6A and D6B are not associated with the XbaI-9 kb **allele**.

3 To explore the molecular basis of the poor metabolizer phenotype associated with the XbaI-9 kb **allele**, complete sequencing of the nine exons and intron-exon boundaries of the **CYP2D6** gene was undertaken after amplification by PCR.

4 All the exons were successfully amplified using **CYP2D6** gene-specific primers except exon 1 which required a combination of CYP2D7 gene-specific 5' primer and a **CYP2D6** gene-specific 3' primer.

5 Sequence data derived from this amplified product revealed that the XbaI-9 kb **allele** corresponds to a novel rearrangement of the locus. This involved a deletion of an approximately...

...Research Fronts: EPILEPSY; DEBRISOQUINE METABOLIC PHENOTYPE; ANTIEPILEPTIC DRUGS; MEPHENYTOIN OXIDATION POLYMORPHISMS; IN-VITRO MODEL)

93-4847 001 ( **HETEROLOGOUS** EXPRESSION; CHROMOSOMAL DNA; GENE ENCODING METHYLMALONYL-COENZYME-A MUTASE)

3/K/3 (Item 3 from file: 34)

DIALOG(R) File 34:SciSearch(R) Cited Ref Sci

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04241140 Genuine Article#: RQ649 No. References: 43

**Title: COMPARISON OF SUBSTRATE METABOLISM BY WILD-TYPE CYP2D6 PROTEIN AND A VARIANT CONTAINING METHIONINE, NOT VALINE, AT POSITION-374**

Author(s): CRESPI CL; STEIMEL DT; PENMAN BW; KORZEKWA KR; FERNANDEZSALGUERO P; BUTERS JTM; GELBOIN HV; GONZALEZ FJ; IDLE JR; DALY AK

Corporate Source: GENTEST CORP, 6 HENSHAW ST/WOBURN//MA/01801; NCI, MOLEC CARCINOGENESIS LAB/BETHESDA//MD/20892; UNIV NEWCASTLE UPON TYNE, DEPT PHARMACOL SCI/NEWCASTLE TYNE NE2 4HH/TYNE & WEAR/ENGLAND/

Journal: PHARMACOGENETICS, 1995, V5, N4 (AUG), P234-243

ISSN: 0960-314X

**Title: COMPARISON OF SUBSTRATE METABOLISM BY WILD-TYPE CYP2D6 PROTEIN AND A VARIANT CONTAINING METHIONINE, NOT VALINE, AT POSITION-374**

**Abstract:** We have analysed kinetic parameters of cDNA-derived CYP2D6 proteins derived from the original CYP2D6 cDNA isolate (Gonzalez FJ et al. Nature 1988: 331, 442-446) which contains methionine at position 374 (CYP2D6 -Met) and a modified cDNA which contains valine at position 374 (CYP2D6 -Val). This latter protein is predicted from the CYP2D6 genomic sequence. Several quantitative differences, but no qualitative differences in metabolism were observed. CYP2D6 -Met was found to have a two-fold lower K<sub>m</sub> and a threefold lower turnover rate for (R)(+)-bufuralol 1'-hydroxylation as compared to CYP2D6 -Val. In contrast, CYP2D6 -Met and CYP2D6 -Val had a similar K<sub>m</sub> for debrisoquine 4-hydroxylation while CYP2D6 -Val had an 18-fold higher turnover rate. CYP2D6 -Val and CYP2D6 -Met had similar K<sub>m</sub>s for metoprolol but CYP2D6 -Val showed a three-fold higher capacity for the O-demethylation reaction compared to alpha...

...which is more similar to that seen in human liver. In the case of sparteine, CYP2D6 -Val and CYP2D6 -Met. showed similar capacities for formation of the 2-dehydrosparteine metabolite but the K<sub>m</sub> value for CYP2D6 -Met was six-fold higher than that for CYP2D6 -Val, Kinetic differences between CYP2D6 -Met and CYP2D6 -Val were further probed by examination of apparent K<sub>i</sub> for inhibition of (R,S...

...while quinidine and dextromethorphan were 8.5-fold and 21-fold more effective inhibitors of CYP2D6 -Val relative to CYP2D6 -Met. An allele specific polymerase chain reaction assay was developed for the CYP2D6 -Met allele. The CYP2D6 -Met allele was not found among 83 individuals, In the aggregate, these data indicated that the CYP2D6 -Val allele is the more common allele in human populations. The quantitative kinetic differences between these two enzymes appears most pronounced for substrates/inhibitors with rigid structures. CYP2D6 -Val more often has a substantially lower K<sub>m</sub> and/or a substantially higher capacity...

...Research Fronts: EPILEPSY; DEBRISOQUINE METABOLIC PHENOTYPE; ANTIEPILEPTIC DRUGS; MEPHENYTOIN OXIDATION POLYMORPHISMS; IN-VITRO MODEL)

93-4847 001 ( HETEROLOGOUS EXPRESSION; CHROMOSOMAL DNA; GENE ENCODING METHYLMALONYL-COENZYME-A MUTASE)

93-5974 001 (CYTOCHROME-P450 ACTIVITIES...

3/K/4 (Item 4 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

(c) 2005 Inst for Sci Info. All rts. reserv.

03837170 Genuine Article#: QJ654 No. References: 18

**Title: NO ASSOCIATION BETWEEN SCHIZOPHRENIA AND POLYMORPHISMS WITHIN THE GENES FOR DEBRISOQUINE 4-HYDROXYLASE ( CYP2D6 ) AND THE DOPAMINE TRANSPORTER (DAT)**

Author(s): DANIELS J; WILLIAMS J; ASHERSON P; MCGUFFIN P; OWEN M

Corporate Source: UNIV WALES COLL MED,DEPT PSYCHOL MED,HEATH PK/CARDIFF CF4 4XN/S GLAM/WALES/; UNIV WALES COLL MED,DEPT PSYCHOL MED/CARDIFF CF4 4XN/S GLAM/WALES/; UNIV WALES COLL MED,DEPT MED GENET/CARDIFF CF4 4XN/S GLAM/WALES/

Journal: AMERICAN JOURNAL OF MEDICAL GENETICS, 1995, V60, N1 (FEB 27), P 85-87

ISSN: 0148-7299

Language: ENGLISH Document Type: NOTE (Abstract Available)

**Title: NO ASSOCIATION BETWEEN SCHIZOPHRENIA AND POLYMORPHISMS WITHIN THE GENES FOR DEBRISOQUINE 4-HYDROXYLASE ( CYP2D6 ) AND THE DOPAMINE TRANSPORTER (DAT)**

...Abstract: association approach to test the hypothesis that mutations in the genes for debrisoquine 4-hydroxylase ( CYP2D6 ) and the dopamine transporter (DAT) confer susceptibility to schizophrenia. There were no differences in **allele** or genotype frequencies between patients and controls ill the mutations causing the poor metaboliser phenotype in CYP2D6 . In addition there was no association found between schizophrenia and a 48bp repeat within the...

...Research Fronts: OF FEAR CONCEPT; MILD HEAD TRAUMA; STATISTICAL POWER ANALYSIS; SAMPLE-SIZE PROGRAM)

93-4847 001 ( **HETEROLOGOUS** EXPRESSION; CHROMOSOMAL DNA; GENE ENCODING METHYLMALONYL-COENZYME-A MUTASE)

3/K/5 (Item 5 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2005 Inst for Sci Info. All rts. reserv.

03827005 Genuine Article#: QJ266 No. References: 11

**Title: AN INACTIVE CYTOCHROME-P450 CYP2D6 ALLELE CONTAINING A DELETION AND A BASE SUBSTITUTION**

Author(s): DALY AK; LEATHART JBS; LONDON SJ; IDLE JR

Corporate Source: UNIV NEWCASTLE UPON TYNE,SCH MED,DEPT

PHARMACOLSCI,PHARMACOGENET RES UNIT,FRAMLINGTON PL/NEWCASTLE TYNE NE2 4HH/TYNE & WEAR/ENGLAND/; UNIV SO CALIF,SCH MED,DEPT PREVENT MED,DIV OCCUPAT & PUBL HLTH/LOS ANGELES//CA/90033

Journal: HUMAN GENETICS, 1995, V95, N3 (MAR), P337-341

ISSN: 0340-6717

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

**Title: AN INACTIVE CYTOCHROME-P450 CYP2D6 ALLELE CONTAINING A DELETION AND A BASE SUBSTITUTION**

Abstract: The cytochrome P450 CYP2D6 is a polymorphic enzyme, for which 5%-10% of Caucasians (poor metabolizers) lack activity. The...

...termination of translation and a truncated protein. Tn a group of 50 white Americans, the **allele** frequency for the new mutant **allele** was 0.01. The new **allele** explains some cases of anomalous genotype/phenotype relationships for CYP2D6 .

Research Fronts: 93-4847 001 ( **HETEROLOGOUS** EXPRESSION; CHROMOSOMAL DNA; GENE ENCODING METHYLMALONYL-COENZYME-A MUTASE)

3/K/6 (Item 1 from file: 94)

DIALOG(R)File 94:JICST-EPlus

(c)2005 Japan Science and Tech Corp(JST). All rts. reserv.

02379472 JICST ACCESSION NUMBER: 95A0704496 FILE SEGMENT: JICST-E

**Identification and Detection of a New Polymorphic CYP2D6 Allele in a Japanese Population.**

YOKOI TAKESHI (1); KOSAKA YASUYUKI (1); SENDA MICHIIHIRO (1); KAMATAKI TETSUYA (1); CHIBA KAN (2); NAKAMURA HIDEFUMI (2); ISHIZAKI TAKASHI (2); GONZALEZ F J (3)

(1) Hokkaido Univ., Fac. of Pharm. Sci.; (2) Kokuritsukokusaiiryose; (3) NIH, USA

Yakubutsu Dotai(Xenobiotic Metabolism and Disposition), 1995, VOL.10,NO.3,



PAGE.403-406, FIG.2, TBL.1, REF.14  
JOURNAL NUMBER: X0758AAJ ISSN NO: 0916-1139 CODEN: YADOE  
UNIVERSAL DECIMAL CLASSIFICATION: 577.151  
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan  
DOCUMENT TYPE: Journal  
ARTICLE TYPE: Original paper  
MEDIA TYPE: Printed Publication

**Identification and Detection of a New Polymorphic CYP2D6 Allele in a Japanese Population.**

**ABSTRACT:** A group of Japanese subjects was phenotyped for **CYP2D6** activity by determination of urinary metabolic ratios of sparteine. The relationship between genotypes of **CYP2D6** gene and the metabolic phenotypes was investigated in one poor metabolizer (a proband). The genotype of the proband was not consistent with any of other previously described mutations in the **CYP2D6** gene. To identify a new **allele** responsible for PM phenotype, we analyzed the **CYP2D6** gene from the proband. The results revealed a nine base insertion in exon 9, designated as 2D6(9-bp). The proband also carried the deletional 2D6(D) **allele**. The 2D6(9-bp)/2D6(D) proband thus showed reduced **CYP2D6** activity. The 2D6(9-bp) and 2D6(D) alleles of the proband were demonstrated to...

...2D6(W)/2D6(D)!, respectively. This 9-base insertion caused loss of catalytic activity of **CYP2D6** by an experiment using the enzyme expressed in yeast. Four of 308 Japanese inherited 2D6(9-bp) **allele** with **heterologous** type (0.7%, 4/616 chromosomes) examined by PCR analysis. (author abst.)

3/K/7 (Item 1 from file: 98)

DIALOG(R) File 98:General Sci Abs/Full-Text  
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04007592 H.W. WILSON RECORD NUMBER: BGS199007592 (USE FORMAT 7 FOR FULLTEXT)

**Cytochromes P450 and species differences in xenobiotic metabolism and activation of carcinogen.**

Lewis, David F. V

Ioannides, Costas; Parke, Dennis V

Environmental Health Perspectives (Environ Health Perspect) v. 106 no10  
(Oct. 1998) p. 633-41

SPECIAL FEATURES: bibl il ISSN: 0091-6765

LANGUAGE: English

COUNTRY OF PUBLICATION: United States

WORD COUNT: 8637

(USE FORMAT 7 FOR FULLTEXT)

**TEXT:**

... recent advances in molecular biological techniques that enable the stable expression of human P450s in **heterologous** systems, together with test procedures for genotyping an individual's P450 complement, point the way...

...genetic polymorphism in human ethnogeographical populations, some of which pertain to P450 enzymes such as **CYP2D6** (54) and CYP2E1 (30), for example. It is not possible to identify chemicals that may...are greater than zero, although there are exceptions, such as some CYP2D and CYP2E substrates. **CYP2D6** substrates usually possess a protonatable nitrogen atom 5-7 A from the site of metabolism...Toxicol Pharmacol 21:38-43 (1995).

54. Sachse C, Brockmoller J, Bauer S, Roots I. **Cytochrome P450 2D6** variants in a caucasian population: **allele** frequencies and phenotypic consequences. Am J Hum Genet 60:284-295 (1997).

55. Lewis DFV...

? b biosci

>>> 44 is unauthorized

>>> 76 is unauthorized

>>>2 of the specified files are not available

18dec05 11:07:08 User276741 Session D71.4

\$0.28 0.034 DialUnits File4

\$0.28 Estimated cost File4

\$13.91 0.628 DialUnits File34

\$32.15 5 Type(s) in Format 3

\$32.15 5 Types

\$46.06 Estimated cost File34

\$1.76 0.201 DialUnits File71

\$1.76 Estimated cost File71

\$3.06 0.288 DialUnits File73

\$3.06 Estimated cost File73

\$0.10 0.028 DialUnits File94

\$1.35 1 Type(s) in Format 3

\$1.35 1 Types

\$1.45 Estimated cost File94

\$0.38 0.090 DialUnits File98

\$1.45 1 Type(s) in Format 3

\$1.45 1 Types

\$1.83 Estimated cost File98

\$0.15 0.043 DialUnits File155

\$0.15 Estimated cost File155

\$0.16 0.034 DialUnits File444

\$0.16 Estimated cost File444

OneSearch, 8 files, 1.346 DialUnits FileOS

\$1.33 TELNET

\$56.08 Estimated cost this search

\$189.37 Estimated total session cost 14.105 DialUnits

SYSTEM:OS - DIALOG OneSearch

File 5:Biosis Previews(R) 1969-2005/Dec W2

(c) 2005 BIOSIS

File 24:CSA Life Sciences Abstracts 1966-2005/Nov

(c) 2005 CSA.

File 28:Oceanic Abstracts 1966-2005/Nov

(c) 2005 CSA.

File 34:SciSearch(R) Cited Ref Sci 1990-2005/Dec W2

(c) 2005 Inst for Sci Info

File 35:Dissertation Abs Online 1861-2005/Nov

(c) 2005 ProQuest Info&Learning

File 40:Enviroline(R) 1975-2005/Jul

File 41:Pollution Abstracts 1966-2005/Nov

(c) 2005 CSA.

File 50:CAB Abstracts 1972-2005/Nov

(c) 2005 CAB International

File 65:Inside Conferences 1993-2005/Dec W2

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File 71:ELSEVIER BIOBASE 1994-2005/Dec W2

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File 73:EMBASE 1974-2005/Dec 16

(c) 2005 Elsevier Science B.V.

File 91:MANTIS(TM) 1880-2005/Jun

2001 (c) Action Potential

File 94:JICST-EPlus 1985-2005/Oct W2  
(c)2005 Japan Science and Tech Corp(JST)  
File 98:General Sci Abs/Full-Text 1984-2004/Dec  
(c) 2005 The HW Wilson Co.  
File 110:WasteInfo 1974-2002/Jul  
(c) 2002 AEA Techn Env.  
**\*File 110: This file is closed (no updates)**  
File 135:NewsRx Weekly Reports 1995-2005/Dec W2  
(c) 2005 NewsRx  
**\*File 135: Please see HELP NEWS135 for information on select**  
journal titles.  
File 136:BioEngineering Abstracts-1966-2005/Nov (c) 2005 CSA.  
File 143:Biol. & Agric. Index 1983-2005/Sep  
(c) 2005 The HW Wilson Co  
File 144:Pascal 1973-2005/Dec W1  
(c) 2005 INIST/CNRS  
File 155:MEDLINE(R) 1951-2005/Dec 07  
(c) format only 2005 Dialog  
**\*File 155: Medline has ceased updating as of UD 20051207, until** e  
the reload is complete. Please see HELP NEWS 154 for details.  
File 164:Allied & Complementary Medicine 1984-2005/Dec  
(c) 2005 BLHCIS  
File 172:EMBASE Alert 2005/Dec 16  
(c) 2005 Elsevier Science B.V.  
File 185:Zoological Record Online(R) 1978-2005/Dec  
(c) 2005 BIOSIS  
File 357:Derwent Biotech Res. \_1982-2005/Dec W3  
(c) 2005 Thomson Derwent & ISI  
File 369:New Scientist 1994-2005/Aug W2  
(c) 2005 Reed Business Information Ltd.  
File 370:Science 1996-1999/Jul W3  
(c) 1999 AAAS  
**\*File 370: This file is closed (no updates). Use File 47 for more current**  
information.  
File 391:Beilstein Reactions 2005/Q2  
(c) 2005 Beilstein GmbH  
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec  
(c) 1998 Inst for Sci Info  
File 467:ExtraMED(tm) 2000/Dec  
(c) 2001 Informania Ltd.  
**\*File 467: F467 no longer updates; see Help News467.** 7.

| Set | Items  | Description   |
|-----|--------|---|
| ?   | s      | ((cytochrome (w) P450 (w) 2D6) or hCYP2D6 or CYP2D6 or CYP-2D6 or (CYP (w) 2D6)) and heterologous) and allele |
|     | 523248 | CYTOCHROME  |
|     | 182280 | P450  |
|     | 7900   | 2D6   |
|     | 4389   | CYTOCHROME (W) P450 (W) 2D6   |
|     | 0      | HCYP2D6   |
|     | 14594  | CYP2D6  |
|     | 1      | CYP-2D6   |
|     | 28396  | CYP   |
|     | 7900   | 2D6   |
|     | 855    | CYP (W) 2D6   |
|     | 201138 | HETEROLOGOUS  |
|     | 377896 | ALLELE  |
| S1  | 12     | ((CYTOCHROME (W) P450 (W) 2D6) OR HCYP2D6 OR CYP2D6 OR CYP-2D6 OR (CYP (W) 2D6)) AND HETEROLOGOUS) AND ALLELE |
| ?   | s1     | and ((screen or screening) and (compounds or drugs or metabolites or  |

```

(small (w) molecule)))
Processing
Processed 10 of 29 files ...
Processing
Processed 20 of 29 files ...
Processing
Completed processing all files
      28655803 1
      255022 SCREEN
      1168771 SCREENING
      3115320 COMPOUNDS
      2043473 DRUGS
      545425 METABOLITES
      4297166 SMALL
      1083356 MOLECULE
      43764 SMALL(W)MOLECULE
S2 61465 1 AND ((SCREEN OR SCREENING) AND (COMPOUNDS OR DRUGS OR
      METABOLITES OR (SMALL (W) MOLECULE)))
? s s1 and ((screen or screening) and (compounds or drugs or metabolites or
(small (w) molecule)))
      12 S1
      255022 SCREEN
      1168771 SCREENING
      3115320 COMPOUNDS
      2043473 DRUGS
      545425 METABOLITES
      4297166 SMALL
      1083356 MOLECULE
      43764 SMALL(W)MOLECULE
S3 1 S1 AND ((SCREEN OR SCREENING) AND (COMPOUNDS OR DRUGS OR
      METABOLITES OR (SMALL (W) MOLECULE)))
? type s3/medium,k

```

3/K/1 (Item 1 from file: 98)  
 DIALOG(R)File 98:General Sci Abs/Full-Text  
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04007592 H.W. WILSON RECORD NUMBER: BGS199007592 (USE FORMAT 7 FOR  
 FULLTEXT)

**Cytochromes P450 and species differences in xenobiotic metabolism and  
 activation of carcinogen.**

Lewis, David F. V  
 Ioannides, Costas; Parke, Dennis V  
 Environmental Health Perspectives (Environ Health Perspect) v. 106 no10  
 (Oct. 1998) p. 633-41  
 SPECIAL FEATURES: bibl il ISSN: 0091-6765  
 LANGUAGE: English  
 COUNTRY OF PUBLICATION: United States  
 WORD COUNT: 8637

(USE FORMAT 7 FOR FULLTEXT)

ABSTRACT: The importance of cytochrome P450 isoforms to species  
 differences in the metabolism of foreign **compounds** and activation of  
 procarcinogens has been identified. The possible range of P450 isozymes in  
 significant...

...significant alterations in carcinogenic response, and includes a  
 discussion of the current procedures for toxicity **screening**, with an  
 emphasis on short-term tests. Reprinted by permission of the publisher.

TEXT:

... large number (>400) of known rodent carcinogens (7-11), only a relatively small number of **compounds** ([similar]20-30) have been shown to be carcinogenic in humans (12, 13). This has...

...Furthermore, there are many examples of marked species differences (15) in the toxicity of foreign **compounds**, with one particular animal model representing a closer paradigm to Homo sapiens than another depending...

...toxic chemicals such as butadiene (29). CYP2E, for example, is inducible by low molecular weight **compounds** such as benzene, ethanol, acetone, carbon tetrachloride, and dichloromethane; it appears that many of the...

...meaningful comparisons between xenobiotic metabolism, and hence toxic activation/detoxication of carcinogens, and other foreign **compounds**, in humans and experimental animal species due, in part, to the differences between the P450s...recent advances in molecular biological techniques that enable the stable expression of human P450s in **heterologous** systems, together with test procedures for genotyping an individual's P450 complement, point the way...

...LONG-TERM TEST PROCEDURES

The rodent carcinogenicity bioassay (53) represents the traditional method for the **screening** of chemicals for potential toxicity and involves the use of two rodent species (rat and...

...genetic polymorphism in human ethnogeographical populations, some of which pertain to P450 enzymes such as **CYP2D6** (54) and CYP2E1 (30), for example. It is not possible to identify chemicals that may...for these species differences in carcinogenicity probably involves the relevant P450 isozymes that metabolize the **compounds** concerned. For coumarin, the major route of metabolism in humans, i.e., the 7-hydroxylation...

...chemical) provides an additional incentive to investigate complementary short-term and noninvasive methods for the **screening** of foreign **compounds**.

SHORT-TERM TEST PROCEDURES

Partly as a result of the escalating costs of life-span...

...without genotoxicity include receptor-mediated events such as those produced by peroxisome proliferators, by estrogenic **compounds**, and by chemicals such as TCDD, which are potent inducers of cytochrome P4501 (CYP1) via...these techniques can be explained in terms of the molecular or electronic structures of the **compounds** themselves (66). Furthermore, both the Ames and ENACT tests produce numerical values that allow the...

...related chemicals and in providing a means for predicting the likely activity/toxicity of untested **compounds** (68,69,76). There are several descriptor variables often found to be involved in the...

...on virtually all aspects of modern living. However, the employment of computer technology in toxicity **screening** has always been a controversial subject for various reasons (79), including a considerable suspicion of...

...testing can be extremely helpful in prescreening chemicals and for prioritization of large numbers of **compounds** for further evaluation using short-term procedures (81). Moreover, there have been many examples which ...low in hepatic tissue (85) and is apparently poorly induced by phenobarbital and other barbiturate **drugs**, which is in complete contrast

with the situation in rats, mice, and rabbits (84). Such...

...represents the most commonly used value for physiological pH. The expressions relating these quantities for **compounds** that are ionizable can be represented in the following way:

$\log D7.4 = \log P...$  to both chemical safety evaluation and P450 specificity, respectively.

The decision tree approach to toxicity **screening** presented in Figure 3 has been constructed on the basis of several studies on predicting...

...hope that workers in the field will find these decision trees of use in the **screening** of chemicals for potential toxicity, where possible species differences in metabolism may be attributable in some CYP2D and CYP2E substrates. **CYP2D6** substrates usually possess a protonatable nitrogen atom 5-7 A from the site of metabolism...

...a hydrogen bond donor/acceptor atom 5-8 A from the site of metabolism. Some **compounds** can be substrates for more than one P450, especially where there is overlapping specificity. This...

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? s ((emulgen (w) 913) or (non-ionic (w) detergent)) and (cytochrome (w) P450) and (CO (w) difference (w) spectra) or (reduced (w) spectr??))

544 EMULGEN  
7269 913  
212 EMULGEN(W) 913  
1812 NON-IONIC  
145289 DETERGENT  
0 NON-IONIC(W) DETERGENT  
523248 CYTOCHROME  
182280 P450  
165643 CYTOCHROME(W) P450  
3308130 CO  
2653324 DIFFERENCE  
1103503 SPECTRA  
447 CO(W) DIFFERENCE(W) SPECTRA

```

3861799 REDUCED
2764048 SPECTR??
965 REDUCED(W)SPECTR??
S4 966 (((EMULGEN (W) 913) OR (NON-IONIC (W) DETERGENT)) AND
(CYTOCHROME (W) P450) AND (CO (W) DIFFERENCE (W)
SPECTRA) OR (REDUCED (W) SPECTR??))
? s (((emulgen (w) 913)) and (cytochrome (w) P450) and (CO (w) difference (w)
spectra) or (reduced (w) spectr??))
544 EMULGEN
7269 913
212 EMULGEN(W)913
523248 CYTOCHROME
182280 P450
165643 CYTOCHROME(W) P450
3308130 CO
2653324 DIFFERENCE
1103503 SPECTRA
447 CO(W)DIFFERENCE(W)SPECTRA
3861799 REDUCED
2764048 SPECTR??
965 REDUCED(W)SPECTR??
S5 966 (((EMULGEN (W) 913)) AND (CYTOCHROME (W) P450) AND (CO
(W) DIFFERENCE (W) SPECTRA) OR (REDUCED (W) SPECTR??))
? s s5 not pd>000314
>>>File 24 processing for PD=000314 : PD=|
>>> started at PD=20000315 stopped at PD=99880000
>>>File 34 processing for PD=000314 : PD=|
>>> started at PD=20000315 stopped at PD=20050812
>>>One or more prefixes are unsupported
>>> or undefined in one or more files.
>>>File 73 processing for PD=000314 : PD=|
>>> started at PD=000315 stopped at PD=051119
>>>File 144 processing for PD=000314 : PD=|
>>> started at PD=20000315 stopped at PD=20050726
Processing
Processed 10 of 29 files ...
Completed processing all files
966 S5
14196525 PD>000314
S6 729 S5 NOT PD>000314
? s s6 and (homogenate and insoluble and saturation)
729 S6
67935 HOMOGENATE
142772 INSOLUBLE
359308 SATURATION
S7 0 S6 AND (HOMOGENATE AND INSOLUBLE AND SATURATION)
? s s6 and (((cytochrome (w) P450 (w) 2D6) or hCYP2D6 or CYP2D6 or CYP-2D6 or
(CYP (w) 2D6))
>>>Unmatched parentheses
? s s6 and (((cytochrome (w) P450 (w) 2D6) or hCYP2D6 or CYP2D6 or CYP-2D6 or
(CYP (w) 2D6)))
729 S6
523248 CYTOCHROME
182280 P450
7900 2D6
4389 CYTOCHROME(W) P450 (W) 2D6
0 hCYP2D6
14594 CYP2D6
1 CYP-2D6
28396 CYP
7900 2D6

```

855 CYP(W)2D6  
S8 3 S6 AND ((CYTOCHROME (W) P450 (W) 2D6) OR HCYP2D6 OR  
CYP2D6 OR CYP-2D6 OR (CYP (W) 2D6)))  
? type s8/medium,k/all

8/K/1 (Item 1 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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0014207141 BIOSIS NO.: 200300165860  
**Effects of G169R and P34S substitutions produced by mutations of CYP2D6  
\*14 on the functional properties of CYP2D6 expressed in V79 cells.**  
AUTHOR: Shiraishi Tomoko; Hosokawa Masakiyo; Kobayashi Kaoru; Tainaka  
Hitoshi; Yamaura Yoshiyuki; Taguchi Miwo; Chiba Kan (Reprint)  
AUTHOR ADDRESS: Laboratory of Pharmacology and Toxicology, Graduate School  
of Pharmaceutical Sciences, Chiba University, 1-33 Yayoi-cho, Inage-ku,  
Chiba-shi, Chiba, 263-8522, Japan\*\*Japan  
AUTHOR E-MAIL ADDRESS: kchiba@p.chiba-u.ac.jp  
JOURNAL: Drug Metabolism and Disposition 30 (11): p1201-1205 November 2002  
2002  
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ISSN: 0090-9556 (ISSN print)  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

**Effects of G169R and P34S substitutions produced by mutations of CYP2D6  
\*14 on the functional properties of CYP2D6 expressed in V79 cells.**

ABSTRACT: CYP2D6 is a polymorphic enzyme that catalyzes the oxidation of  
various drugs. At least 40-mutant alleles of CYP2D6 have been reported.

CYP2D6 \*14, which is one of them found in Asian populations, causes  
deficient activity of CYP2D6. Four amino acid substitutions, P34S,  
G169R, R296C, and S486T, are present in the protein encoded by CYP2D6  
\*14 (CYP2D6 14). Among them, G169R is thought to be a definitive  
substitution because it is unique to CYP2D6 14. However, a previous  
study showed that the activity of G169R-substituted CYP2D6 was about  
40% of wild-type CYP2D6, suggesting that a combination of G169R and  
other substitutions may be required to abolish the activity of CYP2D6.  
In the present study, we examined the effects of combined substitutions  
of G169R and P34S on the functional properties of CYP2D6 and compared  
them with those of a single substitution of G169R or P34S using a...

...The results showed that a combined substitution of G169R and P34S  
reduced the activities of CYP2D6 to less than the detection limit of  
our analytical method for bufuralol 1'-hydroxylation and...

...simultaneous substitution of G169R and P34S is crucial for almost  
completely abolishing the activity of CYP2D6 at least in V79 cells,  
although whether the absence of metabolism is due to the absence of  
functional protein or catalytic incompetency remains unclear because the  
levels of CYP2D6 protein expressed in V79 cells were too low to be  
determined by difference CO-reduced spectra.

DESCRIPTORS:  
CHEMICALS & BIOCHEMICALS: ... CYP2D6 ;  
GENE NAME: CYP2D6 gene

8/K/2 (Item 1 from file: 155)  
DIALOG(R)File 155:MEDLINE(R)

*Not  
prior*



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14446807 PMID: 12386125

**Effects of G169R and P34S substitutions produced by mutations of CYP2D6 \*14 on the functional properties of CYP2D6 expressed in V79 cells.**

Shiraishi Tomoko; Hosokawa Masakiyo; Kobayashi Kaoru; Tainaka Hitoshi; Yamaura Yoshiyuki; Taguchi Miwo; Chiba Kan

Laboratory of Pharmacology and Toxicology, Graduate School of Pharmaceutical Sciences, Chiba University, Chiba-shi, Japan.

Drug metabolism and disposition- the biological fate of chemicals (United States) Nov 2002, 30 (11) p1201-5, ISSN 0090-9556 Journal Code: 9421550

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Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

*Not prior*

**Effects of G169R and P34S substitutions produced by mutations of CYP2D6 \*14 on the functional properties of CYP2D6 expressed in V79 cells.**

CYP2D6 is a polymorphic enzyme that catalyzes the oxidation of various drugs. At least 40-mutant alleles of CYP2D6 have been reported. CYP2D6 \*14, which is one of them found in Asian populations, causes deficient activity of CYP2D6. Four amino acid substitutions, P34S, G169R, R296C, and S486T, are present in the protein encoded by CYP2D6 \*14 (CYP2D6 14). Among them, G169R is thought to be a definitive substitution because it is unique to CYP2D6 14. However, a previous study showed that the activity of G169R-substituted CYP2D6 was about 40% of wild-type CYP2D6, suggesting that a combination of G169R and other substitutions may be required to abolish the activity of CYP2D6. In the present study, we examined the effects of combined substitutions of G169R and P34S on the functional properties of CYP2D6 and compared them with those of a single substitution of G169R or P34S using a...

... The results showed that a combined substitution of G169R and P34S reduced the activities of CYP2D6 to less than the detection limit of our analytical method for bufuralol 1'-hydroxylation and...

... simultaneous substitution of G169R and P34S is crucial for almost completely abolishing the activity of CYP2D6 at least in V79 cells, although whether the absence of metabolism is due to the absence of functional protein or catalytic incompetency remains unclear because the levels of CYP2D6 protein expressed in V79 cells were too low to be determined by difference CO-reduced spectra.

Descriptors: \*Amino Acid Substitution--physiology--PH; \*Cytochrome P-450 CYP2D6 --metabolism--ME; \*Cytochrome P-450 Enzyme System--genetics--GE; \*Cytochrome P-450 Enzyme System--metabolism...

Enzyme No.: EC 1.14.14.1 (Cytochrome P-450 CYP2D6); EC 1.14.14.1 (cytochrome P-450 CYP2C6 (Rat)); EC 1.14.99.10...

...Chemical Name: Ethanolamines; RNA, Messenger; Recombinant Proteins; Dextromethorphan; bufuralol; Cytochrome P-450 Enzyme System; Cytochrome P-450 CYP2D6; cytochrome P-450 CYP2C6 (Rat); Steroid 21-Hydroxylase

8/K/3 (Item 2 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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10375028 PMID: 8251521

**Characterization of two P-450 isozymes placed in the rat CYP2D subfamily.**

Ohishi N; Imaoka S; Suzuki T; Funae Y  
 Laboratory of Chemistry, Osaka City University Medical School, Japan.  
 Biochimica et biophysica acta (NETHERLANDS) Nov 28 1993, 1158 (3)  
 p227-36, ISSN 0006-3002 Journal Code: 0217513  
 Publishing Model Print  
 Document type: Journal Article  
 Languages: ENGLISH  
 Main Citation Owner: NLM  
 Record type: MEDLINE; Completed

... an apparent molecular weight of 29,000 which was designated 29 k-protein. The CO- **reduced spectra** of both P-450 UT-7 and UT-7b showed a peak at 448 nm...

; Amino Acid Sequence; Animals; Antibodies--pharmacology--PD; Cytochrome P-450 **CYP2D6**; Cytochrome P-450 Enzyme System--antagonists and inhibitors --AI; Cytochrome P-450 Enzyme System--isolation...

Enzyme No.: EC 1.- (Mixed Function Oxygenases); EC 1.14.14.1 (Cytochrome P-450 **CYP2D6**)

Chemical Name: Antibodies; Isoenzymes; Lidocaine; Cytochrome P-450 Enzyme System; Mixed Function Oxygenases; Cytochrome P-450 **CYP2D6**

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 \$3.46 TELNET  
 \$79.33 Estimated cost this search  
 \$268.70 Estimated total session cost 22.635 DialUnits

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